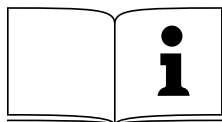
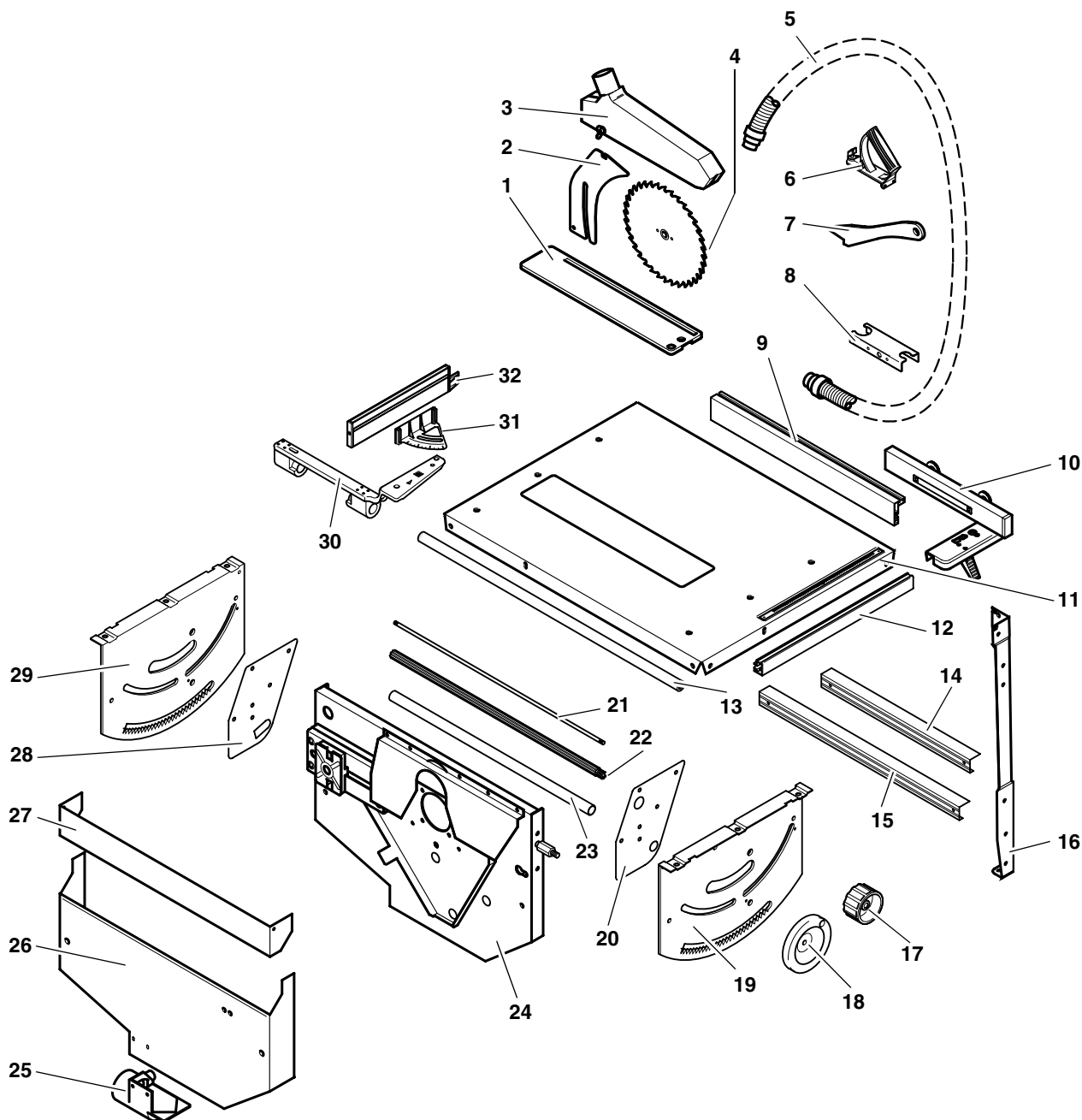


TKHS 315 (AUS)



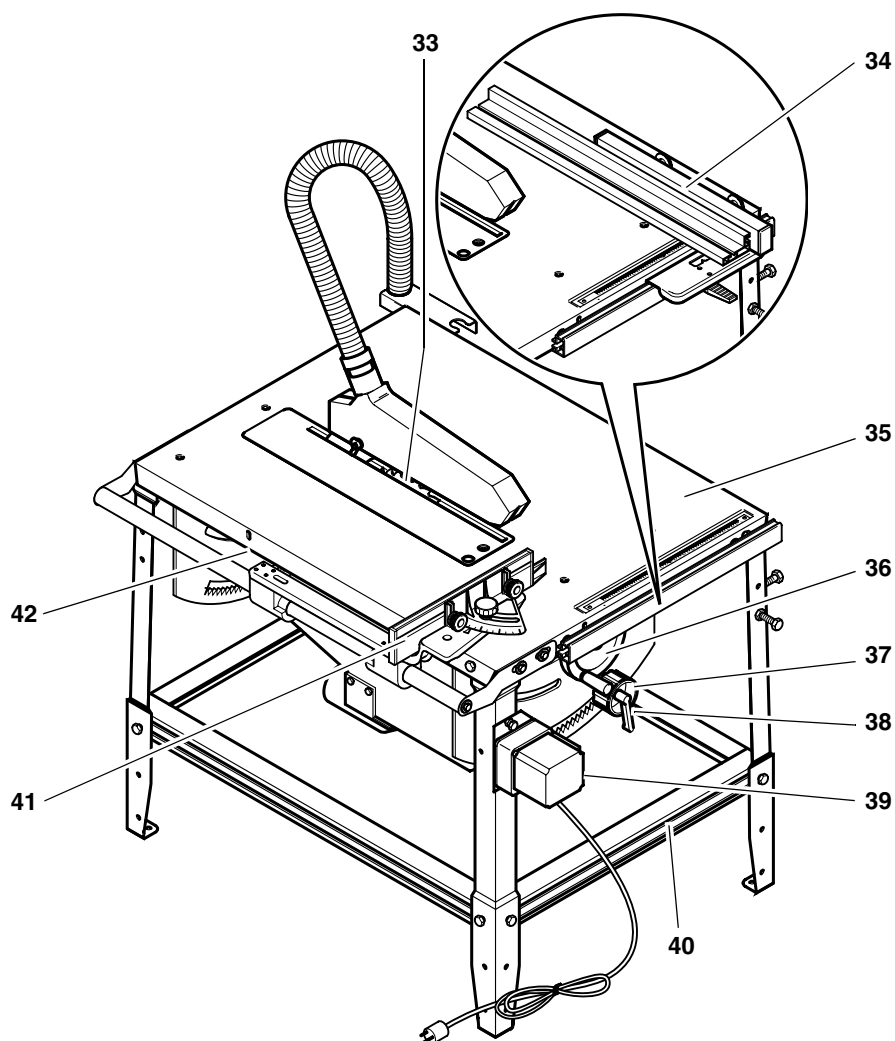
 Operating Instruction 3

1. Scope of delivery



- | | | | | | |
|----|---------------------------------|----|---------------------------------|----|------------------------------------|
| 1 | Table insert | 16 | Leg (4x) | 30 | Fence carrier, lower / mitre fence |
| 2 | Riving knife | 17 | Handwheel / blade tilt | 31 | Fence carrier, upper / mitre fence |
| 3 | Blade guard | 18 | Handwheel / blade rise and fall | 32 | Mitre fence extrusion |
| 4 | Saw blade | 19 | Chipcase guide panel, front | - | Assembly wrench |
| 5 | Suction hose | 20 | Bearing plate, front | - | Hardware bag |
| 6 | Handle for push block | 21 | Threaded rod | | |
| 7 | Push stick / feeding aid | 22 | Pinion shaft | | |
| 8 | Hose carrier | 23 | Setting tube | | |
| 9 | Rip fence extrusion / rip fence | 24 | Motor carrier unit | | |
| 10 | Rip fence | 25 | Dust extraction port | | |
| 11 | Table top | 26 | Chipcase | | |
| 12 | Guide extrusion / rip fence | 27 | Cover | | |
| 13 | Guide bar / mitre fence | 28 | Bearing plate, rear | | |
| 14 | Stanchion, short (2x) | 29 | Chipcase guide panel, rear | | |
| 15 | Stanchion, long (2x) | | | | |

2. Machine overview



- | | |
|--|--|
| 33 Saw blade Ø315 mm | 40 Stand with multiple reinforcement beads for high stability |
| 34 Rip fence | 41 Mitre fence |
| 35 Table top of galvanized steel plate – high stability under load and permanent protection against corrosion | 42 Maintenance-free induction motor |
| 36 Handwheel for setting the depth of cut steplessly from 0 – 85 mm | |
| 37 Handwheel for stepless blade tilt setting from 90° through 45° | |
| 38 Lock lever for locking the blade tilt angle | |
| 39 ON/OFF switch | |

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3. Please read first!

- Assemble tool in strict accordance with these instructions. Only if you follow the instructions exactly does the machine conform to the safety regulations and can be safely operated.
- Read the safety instructions before initial operation.
- If you notice transport damage while unpacking, notify your supplier immediately. In this case, do not assemble and operate the saw!
- Dispose of the packing in an environmentally friendly manner. Take to a proper collecting point.
- Keep these instructions for reference on any issues you may be uncertain about.
- If you lend or sell this machine be sure to have these instructions go with it.

4. Safety instructions

4.1 Specified conditions of use

This machine is intended to rip and crosscut grown timber, faced boards, chip board and wood-core plywood sheets, and similar wood-derived materials.

Do not cut round stock without suitable jigs or fixtures. The rotating saw blade could turn the workpiece.

Any other use is considered to be not as specified and not permitted. The manufacturer is not liable for any damage caused by unspecified use.

Modification of the machine or use of parts not approved by the equipment manufacturer can cause unforeseeable damage!

4.2 General safety instructions

When using this tool observe the following safety instructions, to exclude the risk of personal injury or material damage.

Please also observe the special safety instructions in the respective chapters; where applicable, follow the legal directives or regulations for the prevention of accidents pertaining to the use of circular saws.



General hazards!

Keep your work area tidy – a messy work area invites accidents.

Be alert. Know what you are doing. Set out to work with reason. Do not operate tool while under the influence of drugs, alcohol or medication.

Consider environmental effects: provide proper lighting.

Prevent adverse body positions. Ensure firm footing and keep your balance at all times. Use suitable workpiece supports when cutting long stock.

Do not operate tool near inflammable liquids or gases.

The saw shall only be started and operated by persons familiar with circular saws, and who are at any time aware of the dangers associated with the operation of such tool.

Keep bystanders, particularly children, out of the danger zone. Persons under 18 years of age shall use this tool only in the course of their vocational training, under the supervision of an instructor.

Do not permit other persons to touch the tool or power cable while it is running.

Do not overload tool – use it only within the performance range it was designed for (see "Technical specifications").



Danger! Risk of electric shock!

Do not expose tool to rain.

Do not operate tool in damp or wet envi-

ronment.

Prevent body contact with earthed objects such as radiators, pipes, cooking stoves, refrigerators when operating this tool.

Do not use the power cable for purposes it is not intended for.



Risk of personal injury and crushing by moving parts!

Do not operate the tool without installed guards.

Always keep sufficient distance to the saw blade. Use suitable feeding aids, if necessary.

Keep sufficient distance to driven components when operating the electric tool. Do not attempt to stop the saw blade by pushing the workpiece against its side.

Ensure the tool is disconnected from power supply before servicing.

Ensure that when switching on (e.g. after servicing) no tools or loose parts are left on or in the tool.

Turn power off if the tool is not used.



Cutting hazard, even with the cutting tool at standstill!

Wear gloves when changing cutting tools.



Risk of kickback (workpiece is caught by the saw blade and thrown against the operator):

Always work with a properly set riving knife.

Do not jam workpieces.

Cut thin or thin-walled workpieces only with fine-toothed saw blades. Always use sharp saw blades.

If in doubt, check workpiece for inclusion of foreign matter (e.g. nails or screws).

Cut only stock of dimensions that allow for safe and secure holding while cutting.

Never cut several workpieces at the same time – and also no bundles containing several individual pieces. Risk of personal injury if individual pieces are caught by the saw blade uncontrolled.

When cutting round stock, use a suitable jig to prevent the workpiece from turning.



Drawing-in/trapping hazard!

Ensure that no parts of the body or clothing can be caught and drawn in by rotating components (**no** neckties, **no** loose-fitting clothes; contain long hair with hair-net).

Never cut workpieces containing the following materials:

- ropes
- strings
- cords
- cables
- wires

Hazard generated by insufficient personal protection gear!

Wear hearing protection.

Wear safety glasses.

Wear dust mask.

Wear suitable work clothes. When working outdoors wearing of non-slip shoes is recommended.

Risk of injury by inhaling wood dust!

Dust of certain timber species (e.g. oak, beech, ash) can cause cancer when inhaled: work only with a suitable dust collector attached to the saw.

Hazard generated by modification of the machine or use of parts not tested and approved by the equipment manufacturer!

Assemble tool in strict accordance with these instructions.

Use only parts approved by the equipment manufacturer.

Use only tools (saw blades) conforming to EN 847-1:1997.

Do not make changes to any of the parts.

Use only matching saw blades and riving knives.

Hazard generated by tool defects!

Keep tool and accessories in good repair. Observe the maintenance instructions.

Before any use check tool for possible damage: before operating the tool all safety devices, protective guards or slightly damaged parts need to be checked for proper function as specified. Check to see that all moving parts work properly and do not jam. All parts must be correctly installed and meet all conditions necessary for the proper operation of the tool.

Damaged protection devices or parts must be repaired or replaced by a qualified specialist. Have damaged switches replaced by a service centre. Do not operate tool if the switch can not be turned ON or OFF.

Keep handles free of oil and grease.

4.3 Symbols used throughout these instructions

Danger!
Indicates risk of personal injury or severe material damage.

Risk of electric shock!
Risk of personal injury by electric shock.

Drawing-in/trapping hazard!
Risk of personal injury by body parts or clothing being drawn into the rotating saw blade.

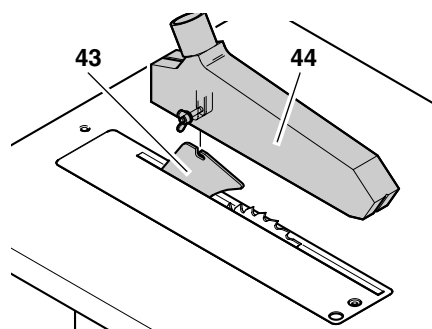
Caution!
Risk of material damage.

Note:
Additional information.

4.4 Safety devices**Riving knife**

The riving knife (43) prevents the workpiece from being caught by the rising teeth of the saw blade and being thrown against the operator.

Always have the riving knife installed during operation.

**Blade guard**

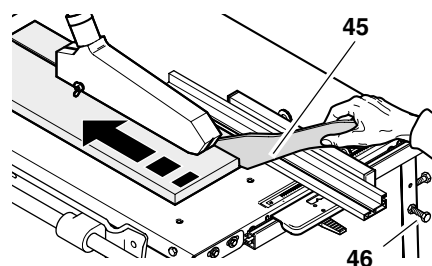
The blade guard (44) protects against unintentional contact with the saw blade and from chips flying about.

Always have the blade guard installed during operation.

Push stick

The push stick (45) serves as an extension of the hand and protects against accidental contact with the saw blade.

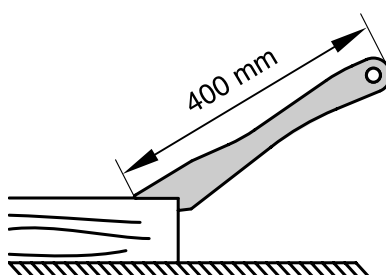
Always use the push stick if the distance between saw blade and rip fence is less than 120 mm.



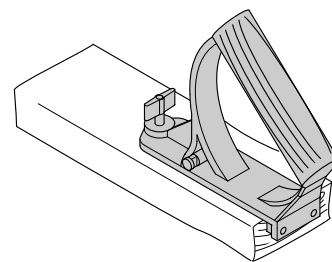
Guide the push stick at an angle of 20° ... 30° against the saw table's surface.

When the push stick is not used, it can be hung to the holder (46) provided.

Replace the push stick if damaged.

**Handle for push block**

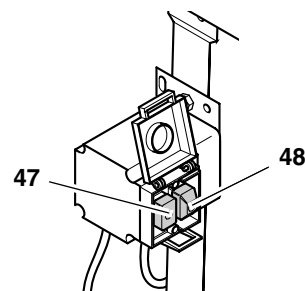
To be affixed to a suitable board. For the safe guiding of small stock.

**5. Special product features**

- Steplessly adjustable bevel tilt from 90° to 45°.
- Stepless depth of cut setting to 85 mm.
- An undervoltage relay prevents the machine from starting up when power is restored after a power failure.
- All operating elements are located at the machine's front.
- Robust sheet metal construction with galvanized saw table.

6. Operating elements**ON/OFF switch**

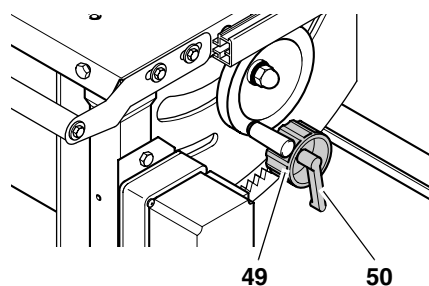
- To start = press green switch button (47).
- To stop = press red switch button (48).

**Note:**

In the event of a power failure an undervoltage relay is activated. This prevents the starting of the machine when the power is restored. To restart, the green switch button must be actuated.

Setting device for saw blade tilt

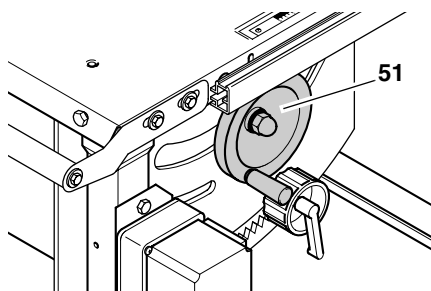
The saw blade tilt can be steplessly set by the handwheel (49) from 0° through 45°.



In order to prevent the set blade tilt to change during cutting, its position is locked with the lock lever (50).

Handwheel for setting the depth of cut

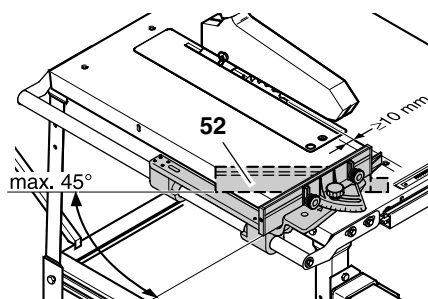
The depth of cut can be adjusted by turning the handwheel (51).



Fence

The saw is equipped with two fences:

- Mitre fence (for cross/mitre cuts):

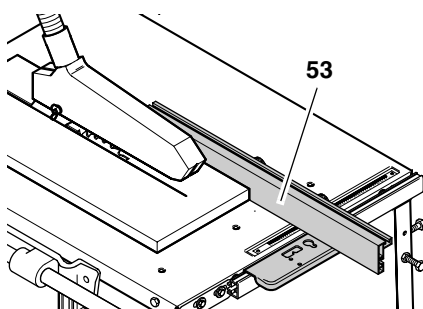


For use as mitre fence the short fence extrusion (52) must be installed. The mitre fence is mounted on a guide bar, fastened to the left-hand side of the saw table.

The plastic nose of the fence extrusion must point towards the saw blade.

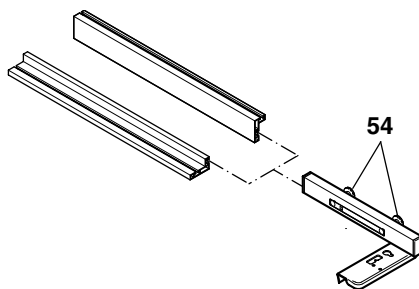
For mitre cuts, the fence extrusion is adjustable to 45° maximum.

- Rip fence (for ripping):



For use as rip fence the long fence extrusion (53) must be installed. It is mounted on the guide extrusion at the front of the saw table.

After loosening the two knurled nuts (54), the fence extrusion can be removed and shifted:



Wide edge:

- for cutting thick stock

Small edge:

- for cutting thin stock;
- when the saw blade is tilted.

7. Assembly



Danger!

Modifications of the saw or the use of parts not tested and approved by the equipment manufacturer can lead to unforeseen damage during operation!

- Assemble the saw in strict accordance with these instructions.
- Use only the parts supplied as standard delivery.
- Do not change any parts.

Only if you follow the instructions exactly does the saw conform to the safety regulations and can be safely operated.

If you also observe the following notes, the assembly will cause no problems:

- Read the instructions for each step before executing it.
- Lay out the parts required for each assembly step.

Required tools

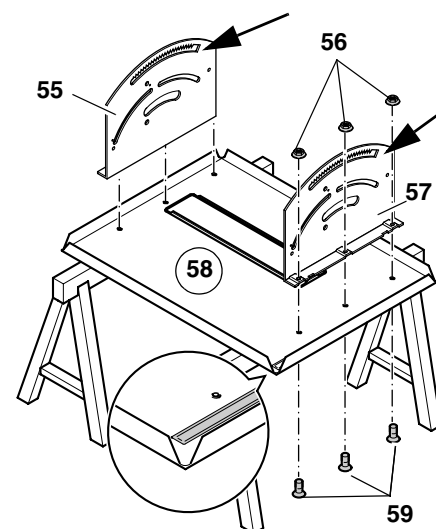
- Hex. wrench 4 mm
- Hex. wrench 5 mm
- Hex. wrench 6 mm
- Wrench 10 mm
- Wrench 13 mm
- Wrench 17 mm
- Wrench 19 mm
- Ring spanner 46 mm
- Philips screwdriver

Chipcase guide panel installation

Item	Description	Qty.
55	Chipcase guide panel, rear	1
56	Flange nut M8	6
57	Chipcase guide panel, front	1
58	Table top	1
59	Hex. socket counter-sunk head screw M8 x 25	6

The chipcase guide panels (55) and (57) are installed on the underside of the table top (58).

1. Place table top with the folds facing up on a sturdy support.



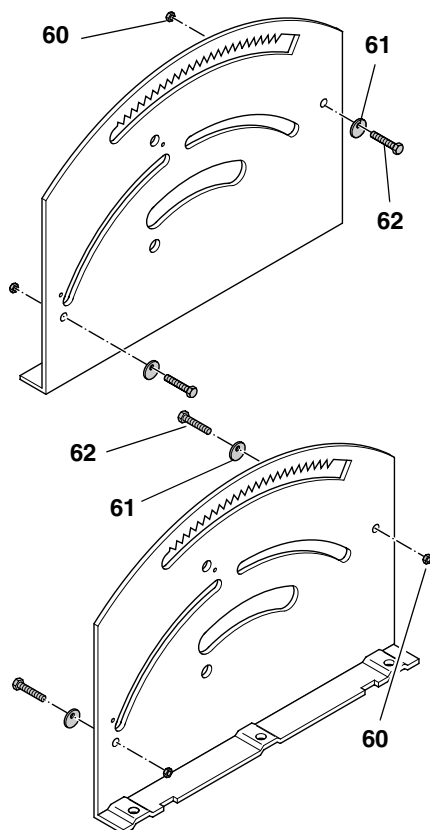
2. Attach front chipcase guide panel (57) and rear chipcase guide panel (55) using three each countersunk screws (59) and flange nuts (56) to the underside of the table top (58):

- The front of the saw is where the recess for the rip fence scale is located in the table top (see image detail).
- The square ends of the curved oblong holes (arrows) must face the edge of the table top which is closer to the opening for the saw blade.
- The folded edges of the chipcase guide panels must point outwards.

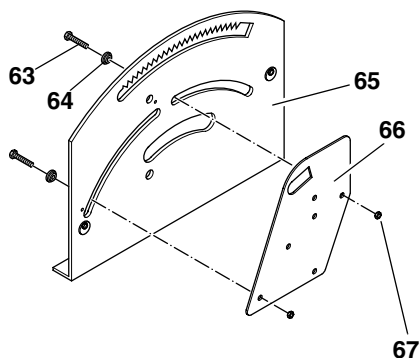
Bearing plate installation

Item	Description	Qty.
60	Hexagon nut M6	4
61	Cam plate	4
62	Hexagon head screw M6 x 16	4
63	Hexagon head screw M8 x 20	4
64	Guide roller	4
66	Bearing plate, rear	1
67	Flange nut M8	4
68	Bearing plate, front	1
70	Indicator	1
71	Angle scale	1

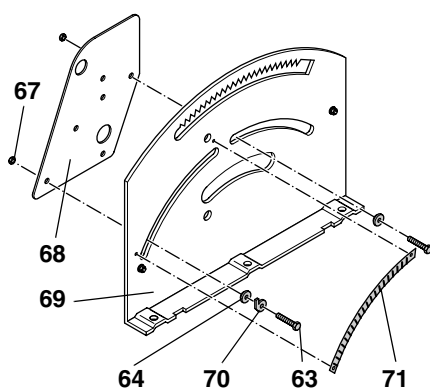
1. Attach two each cam plate (61) (hole not in centre) with hexagon head screw (62) and hexagon nut (60) fingertight to the inside of each chipcase guide panel.



2. Fasten the rear bearing plate (66) (with oblong hole) to the rear chipcase guide panel (65) (convex hole facing inward):
 - Place guide rollers (64) with the smaller washer from the outside in the curved oblong holes.
 - Put hexagon head screws (63) from the outside through the guide roller (64) and the holes of the bearing plate.
 - Screw on the flange nut (67) from the inside.



3. Install the front bearing plate (68) likewise on the front chipcase guide panel (69) – fit the indicator (70) as illustrated between the screw's head (63) and guide roller (64).

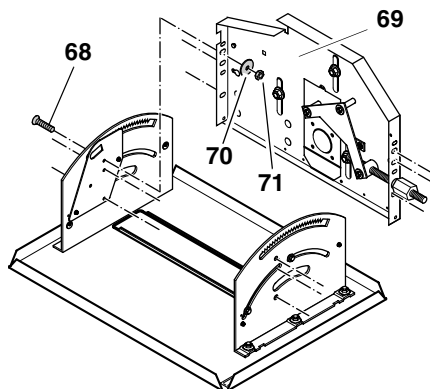


4. Adjust bearing plates so that the their lower edges are parallel with the table top.
5. The two lower cam plates serve as stop for the bearing plates; adjust and tighten them.
6. Affix the angle scale (71) to the front chipcase guide panel – the two holes in both the chipcase guide panel and the angle scale must be aligned as illustrated.

Motor carrier unit installation

Item	Description	Qty.
68	Hex. socket counter-sunk head screw M6 x 16	6
69	Motor carrier unit	1
70	Washer Ø8.4/25	6
71	Flange nut M6	6

1. Place the motor carrier unit (69) vertically between the two bearing plates.

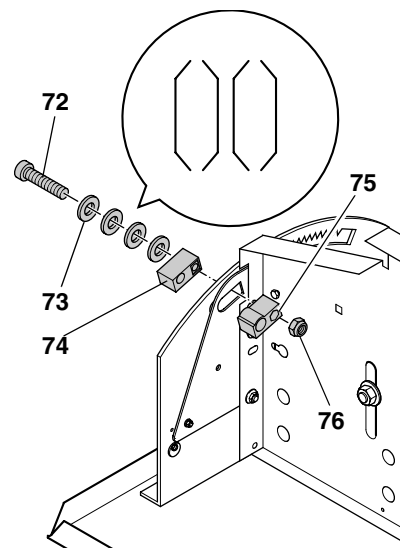


2. Bolt motor carrier unit to the bearing plates:
 - At front and rear, fit three each countersunk screws (68) from the outside into the holes of the bearing plate and the corresponding holes in the motor carrier unit.
 - From the inside put a washer (70) and a flange nut (71) on each screw.
3. Align motor carrier unit to be exactly vertical to the table top and tighten the countersunk screws.

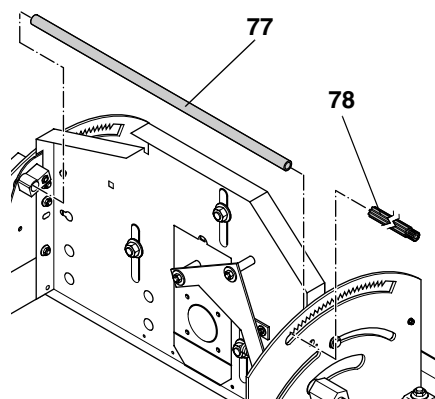
Bevel tilt setting device installation

Item	Description	Qty.
72	Hex. socket counter-sunk head screw M8 x 35	1
73	Cup spring 8.216	4
74	Outer clamping piece	1
75	Inner clamping piece	1
76	Hexagon nut, prevailing torque-type, M8	2
77	Setting tube	1
78	Pinion shaft	1
79	Threaded rod	1
80	Setting knob	1
81	Washer 17/30	1
82	Hexagon thin nut, M16	1
83	Washer 8.4/17	1
84	Lock lever	1

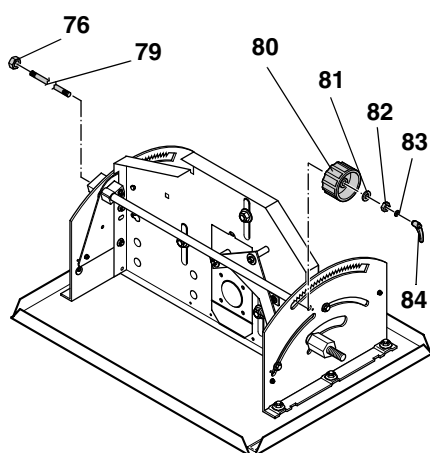
1. Put on the outer clamping piece (74) to the outside of the rear chipcase guide panel, and the inner clamping piece (75) to the inside of the rear bearing plate.



2. Secure both clamping pieces with cap screw (72), four disc springs (73) and prevailing torque-type hexagon nut (76):
 - Place the prevailing torque-type hexagon nut (76) from the inside into the seat provided on the inner clamping piece (75).
 - Put the four disc springs (73) with their convex sides facing each other on the cap screw (72).
 - From outside, put the cap screw through the clamping pieces and screw into the prevailing torque-type hexagon nut – tighten the cap screw only so much that the bearing plate will still move.
3. Fit the setting tube (77) at the rear into the inner clamping piece and at the front into the corresponding hole of the bearing plate.



- Slide pinion shaft (78) from the front into the setting tube, so that it will rest on the gears of the front and rear chipcase guide panels (the threaded end of the pinion shaft must be at the front of the saw).

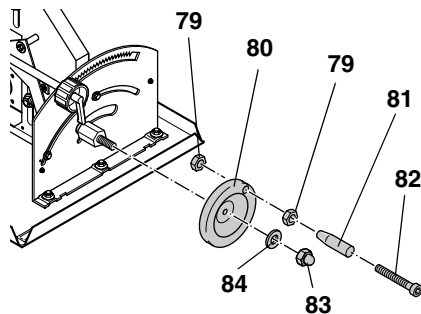


- Put setting knob (80) on the pinion shaft and secure in place with washer (81) and hexagon thin nut (82).
- Turn the prevailing torque-type hexagon nut (76) on the threaded rod (79), so that approx. 2 thread will protrude.
- Slide the threaded rod into the pinion shaft from the rear of the saw.
- At the front, put a washer (83) and a lock lever (84) on the threaded rod and tighten.

Handwheel installation

Item	Description	Qty.
79	Hexagon nut M6	2
80	Handwheel	1
81	Turning tang	1
82	Hex. socket counter-sunk head screw M6 x 60	1
83	Cap nut M14	1
84	Washer 15/28	1

- Put the turning tang (81) on the cap screw (82), then screw on a hexagon nut (79) so far down that the turning tang will still easily turn.

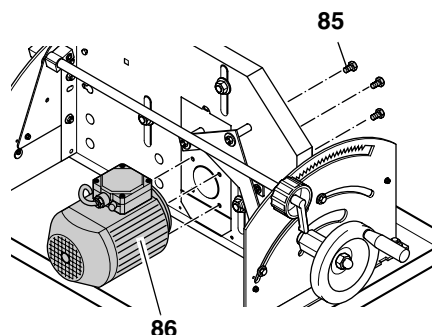


- Fasten the thus prepared turning tang with the second hexagon nut (79) to the handwheel (80) and tighten both hexagon nuts.
- Put handwheel on the threaded spindle of the motor carrier unit and secure with washer (84) and cap nut (83) – to counter, hold the hexagon nut on the spindle.

Motor installation

Item	Description	Qty.
86	Motor	1
85	Hexagon head screw, prevailing torque type, M6 x 16	4

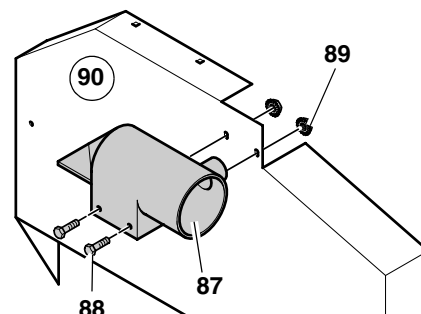
- Fasten motor (86) with hexagon head screws (85) to the motor carrier unit.



Installation of dust extraction port to the chipcase

Item	Description	Qty.
87	Dust extraction port	1
88	Hexagon head screw M5 x 16	2
89	Flange nut M5	2
90	Chipcase	1

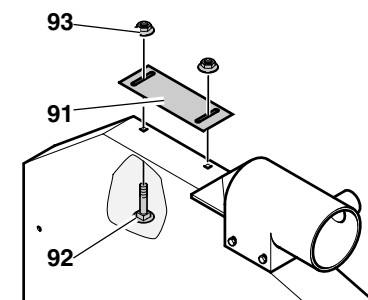
- Attach the suction port (87) with two hexagon head screws (88) and flange nuts (89) as illustrated to the outside of the chipcase (90).



Installation of sliding plate port to the chipcase

Item	Description	Qty.
91	Sliding plate	1
92	Cup square neck screw M5 x 16	2
93	Flange nut M5	2

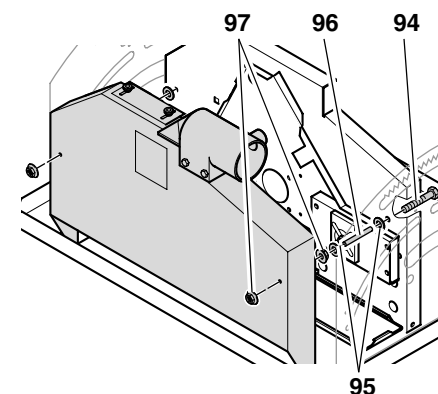
- Install the sliding plate (91) on the outside of the chipcase, using two each saucer-head screws (92) and flange nuts (93).



Installation of chipcase to the motor carrier unit

Item	Description	Qty.
94	Hexagon head screw M6 x 80	2
95	Washer 6.4/12.5	4
96	Distance sleeve 6 x 60	2
97	Hexagon nut, prevailing torque type, M6	4

- Insert one each hexagon head screw (94) from the motor side into the motor carrier unit.



- From the saw blade side, put one each washer (95), distance sleeve (96) and another washer (95) on the hexagon head screw, then secure with one each prevailing torque type hexagon nut (97).
- Slide the pre-assembled chipcase onto the two hexagon head screws and fasten with one each prevailing torque type hexagon nut (97).

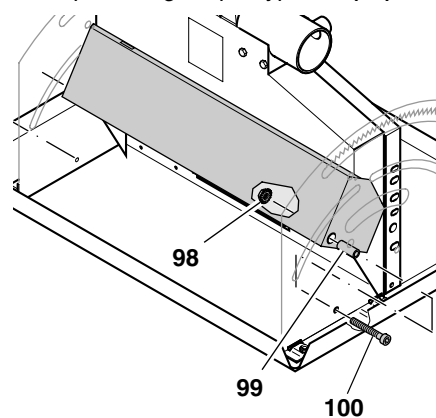
Cover installation

Item	Description	Qty.
98	Hexagon nut, prevailing torque type, M6	2
99	Distance sleeve 6.4 x 1515	2

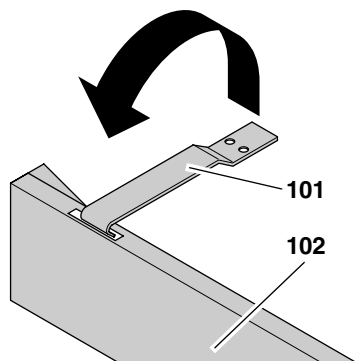
Item	Description	Qty.
100	Hex. socket counter-sunk head screw M6 x 25	2
101	Guide bracket	1
102	Cover	1
103	Pan head tapping screw Ø3.9 x 9.5	2

The cover is – same as the motor carrier unit – hinge mounted at the two chip-case guide panels. The heads of two cap screws, fitted to the cover, serve as swivel pin.

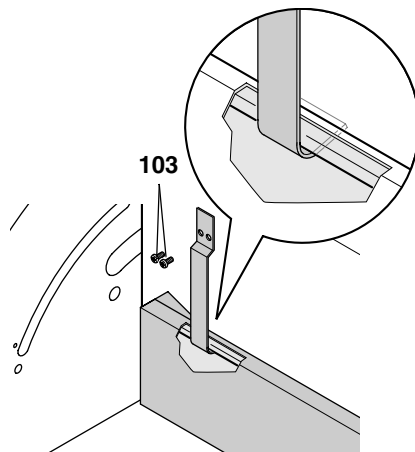
1. Fit a distance sleeve (99) on a cap screw (100), then put it from the outside into one of the cover's side panels.
2. Secure cap screw on the inside with a prevailing torque-type nut (98).



3. Place cover between the two chip-case guide panels. The cap screw's head must fit as illustrated into the Ø 10.5 mm hole in the chipcase guide panel.
4. Install the second cap screw with a flange nut on the cover, so that its head will likewise fit in the Ø 10.5 mm hole in the chipcase guide panel.
5. Insert guide bracket (101) into the cover (102) as illustrated.



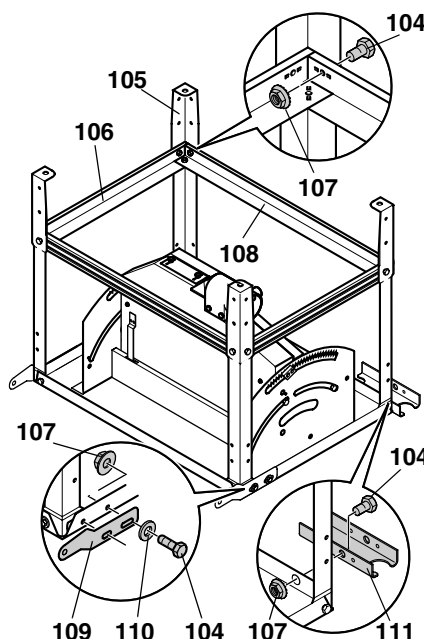
6. Slide guide bracket so far in that the bent end will hold the chipcase. Fasten the guide bracket with two pan head tapping screws (103) to the chipcase.



Stand assembly

Item	Description	Qty.
104	Hexagon head screw M8 x 16	20
105	Leg	4
106	Stanchion, short	2
107	Flange nut M8	20
108	Stanchion, long	2
109	Bracket for mitre fence	2
110	Washer 8.4/17	4
111	Hose carrier	1

1. Attaching the four legs (105) to the inside of the table panel's corners:
 - at the left front and rear of the table top install the bracket (109) for the mitre fence with extra washers (110) as illustrated;
 - fasten the hose carrier (111) as illustrated;
 - fit hexagon head screws (104) into holes from the outside;
 - from the inside screw on flange nuts (107) – do not yet tighten fully.



2. Fit long stanchions (108) between the side legs, short stanchions (106) between the front and rear legs:

- the wide sides of the stanchions face the table panel;
- the ribs and recesses must fit into each other;
- fit hexagon head screws (104) into holes from the outside;
- from the inside screw on flange nuts (107) – do not yet tighten fully.

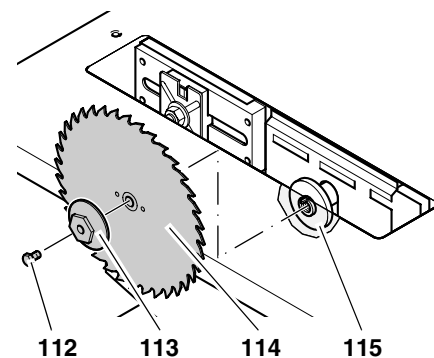
3. Screwing up the stanchions with each other:
 - Fit hexagon head screws (104) from the side of the table top;
 - from the inside screw on flange nuts (107) – do not yet tighten fully.
 - With the help of another person, turn the saw over and stand it on a level floor.

Saw blade installation

Item	Description	Qty.
114	Saw blade Ø315 mm	1

Danger!
Cutting hazard by the saw blade: wear gloves when fitting a saw blade.

1. Raise motor fully.
2. Unscrew arbor bolt (112) from the saw spindle (L.H. thread!) and remove the outer blade collar (113).
3. Fit saw blade (114), observe running direction of teeth.



4. Put on outer blade collar (115) (the inner blade collar's lug must engage in the groove of the outer blade collar (113)).
5. Screw arbor bolt (112) back in the saw spindle (L.H. thread!) and tighten it. Hold outer blade collar (115) with ring spanner to counter.

Caution!
Always hold the saw blade with the ring spanner SW 46 at the outer blade collar, never by any other means (e.g. with pliers). Otherwise the saw blade will be damaged.

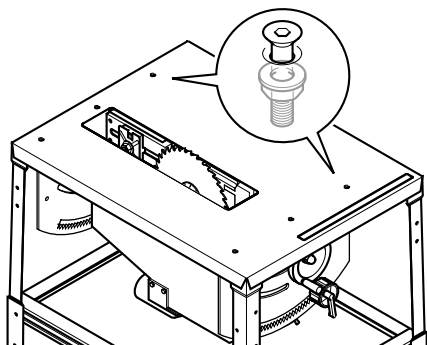
Risk of injury!
After the arbor bolt has been tightened, remove all tools used during saw blade installation!

Saw blade alignment

- If necessary, crank the saw blade fully up using the handwheel to check the alignment.
 - The saw blade must be aligned exactly parallel with the side edges of the table top.
 - It must not touch the table insert extrusion (neither in the 90° position nor in the 45° bevel position).

To correct the alignment:

- Loosen the six flange nuts holding the fastening brackets under the saw table by approx. one turn.



- Move the fastening brackets, with the motor unit/chipcase assembly attached to it, as required, until the alignment is correct.
- Tighten the six flange nuts of the two fastening brackets.

Riving knife installation

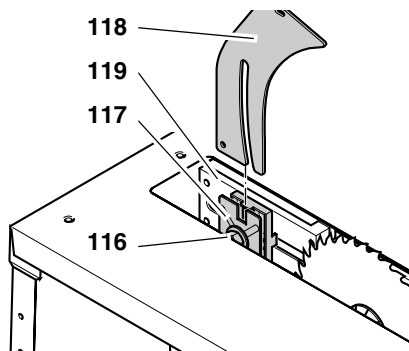
Item	Description	Qty.
118	Riving knife	1



Danger!

The riving knife is one of the safety devices and has to be correctly installed for a safe operation:

- Loosen the hexagon nut (= Keps nut) (116) at the pressure plate (117) approx. two turns.
- Slide the riving knife (118) as illustrated between riving knife carrier (119) and pressure plate (117).
- Adjust riving knife (see below) and tighten the Keps nut.



Riving knife adjustment.

In order to match the riving knife exactly with the saw blade, its position can be adjusted in two planes:

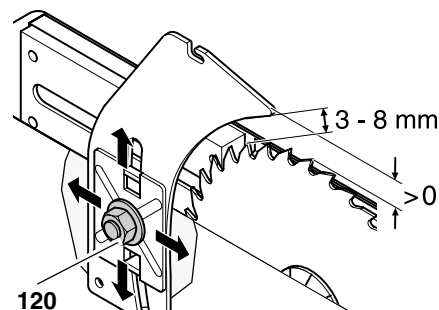
- in the distance to the saw blade;

- in its lateral alignment.

Distance to the saw blade:

The distance between the saw blade's peripheral edge and the riving knife shall be between 3...8 mm.

The riving knife must project at least the same distance over the saw table as the saw blade.



- If necessary, loosen the Keps nut (120) on the riving knife one turn.
- Adjust distance of the riving knife to the saw blade.
- Tighten the Keps nut.

Lateral alignment:

riving knife and saw blade must be perfectly in line.

- Turning the four hexagon socket head cap screws (121) on the motor carrier unit below the saw table clockwise
= riving knife is moved to the right.
- Turning the four hexagon socket head cap screws (121) on the motor carrier unit below the saw table counter-clockwise
= riving knife is moved to the left.

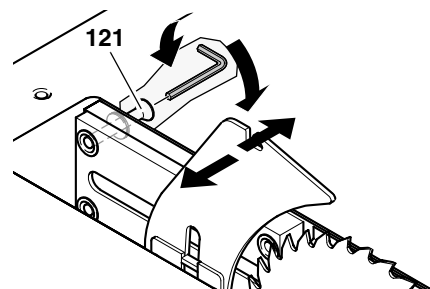
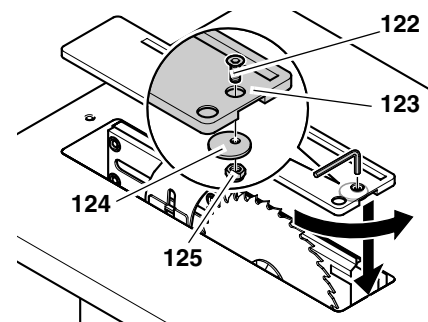


Table insert extrusion installation

Item	Description	Qty.
122	Hex. socket counter-sunk head screw M6 x 16	1
123	Table insert	1
124	Cam plate 25 mm	1
125	Hexagon nut, prevailing torque type, M6	1

- Put the countersunk screw (122) from the top through the hole in the table insert extrusion (123).
- From the underside, put the cam plate (124) on the flat head screw and secure with the prevailing torque-type hexagon nut (125) – the cam plate remains rotatable.

- Turn flat head screw clockwise (viewed from top) until it stops, and place table insert extrusion flush into the table top's slot.

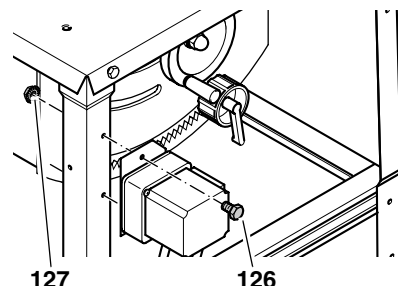


- Turn the countersunk screw counter-clockwise: the cam plate will engage in the recess of the saw table and locks the table insert extrusion in place.

Mounting the switch

Item	Description	Qty.
126	Hexagon head screw M8 x 16	2
127	Flange nut M8	2

- Attach the switch plate with two each hexagon head screws (126) and flange nuts (127) to the left front leg. The switch buttons must point to the right-hand side.



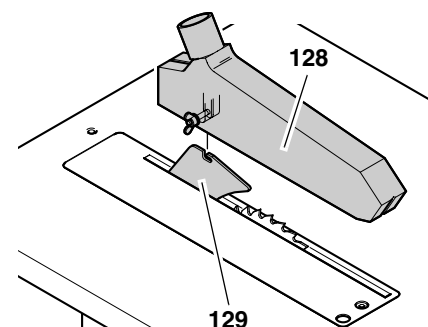
Caution!

Make sure the cable does not run over sharp edges and is not bent.

Installing the dust collection gear

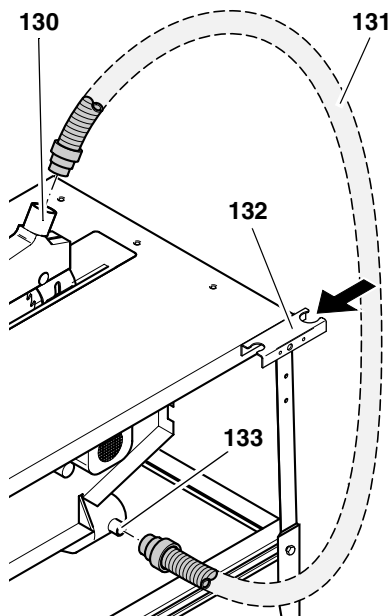
Item	Description	Qty.
128	Blade guard	1
131	Suction hose	1

- Install blade guard (128) on the riving knife (129).



- Push one end of the suction hose (131) on the blade guard's suction port (130).

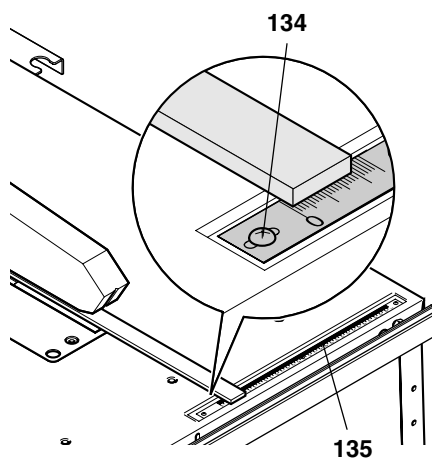
3. Fit other end of the suction hose to the dust extraction port **(133)** on the chipcase.
4. Hook the suction hose into the hose carrier **(132)**.
5. Connect the saw's dust extraction port at the chipcase to a suitable dust collector (see "Dust collector" in chapter "Operation").



Scale installation

Item	Description	Qty.
134	Pan-head tapping screw	3
135	Scale	1
–	Washer 4.3/9	3

1. Fasten scale **(135)** with three pan-head tapping screws **(134)** and washers to the recess of the saw table – do not yet tighten: the scale still needs to be adjusted according position and thickness of the saw blade.



2. Place a straightedge against the right-hand side of the saw blade.



Note:

As the saw blade's teeth are alternately bent outwards (= set of the saw teeth), make sure the straightedge

does not touch any of the teeth set to the right. Otherwise the straightedge is not exactly parallel with the saw blade.

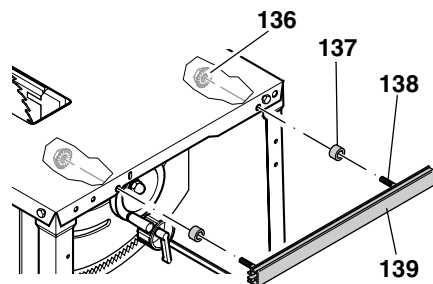
3. Scale adjustment: the "0" mark of the scale must coincide exactly with the left edge of the straightedge.
4. Carefully tighten the pan head tapping screws, then remove the straightedge.

Installation on the rip fence guide extrusion

Item	Description	Qty.
136	Flange nut M8	2
137	Distance sleeve 8 x 16	2
138	Cup square neck screw M8 x 30	2
139	Guide extrusion, rip fence	1

The guide extrusion for the rip fence is fitted to the front of the saw table.

1. Slide the head of the saucer-head screws **(138)** into the guide extrusion **(139)**.

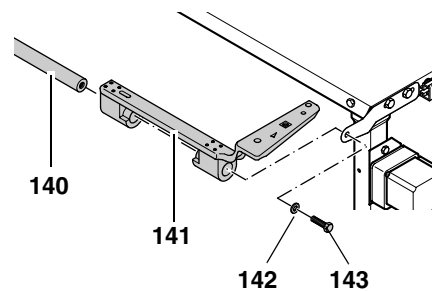


2. Put distance sleeves **(137)** on the saucer-head screws.
3. Fit saucer-head screws into the holes provided at the front of the saw table and secure with flange nuts **(136)**.

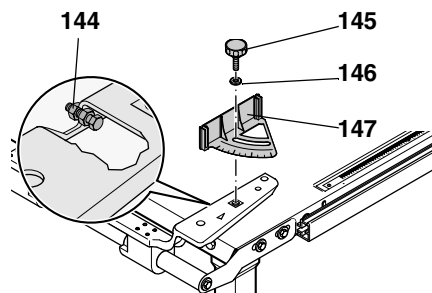
Mitre fence assembly

Item	Description	Qty.
140	Guide bar	1
141	Fence carrier, lower	1
142	Serrated lock washer 8.4	2
143	Hexagon head screw M8 x 16	4
145	Star-knob screw M8 x 23	1
146	Washer 8.4/17	1
147	Fence carrier, upper	1
148	Fence extrusion, short	1

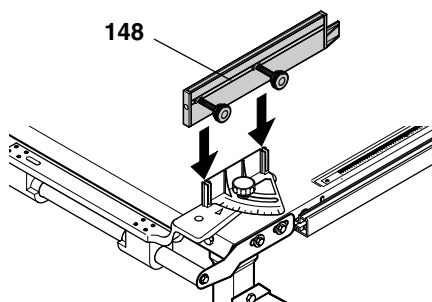
1. Slide the lower fence carrier **(141)** onto the guide bar **(140)** as illustrated.



2. Install the guide bar between the two guide bar brackets at the left front and rear of the saw table, using one each hexagen head screw **(143)** and serrated lock washer **(142)**.
3. Align guide bar exactly parallel with the table top's edge.
4. Tighten all screws of mounting brackets and guide bar.
5. Swing the lower fence carrier up.
6. Install the upper fence carrier **(147)** with washer **(146)** and star-knob screw **(145)**.



7. Place the short fence extrusion **(148)** on the carrier and secure in position with the knurled nuts:
 - the plastic nose of the fence extrusion must point towards the saw blade
 - the washers must be positioned between the fence carrier and the knurled nuts



8. By means of the set screw **(144)** the fence extrusion can be set exactly square to the saw blade. The set screw **(144)** is accessible when the mitre fence is swung down.



Note:

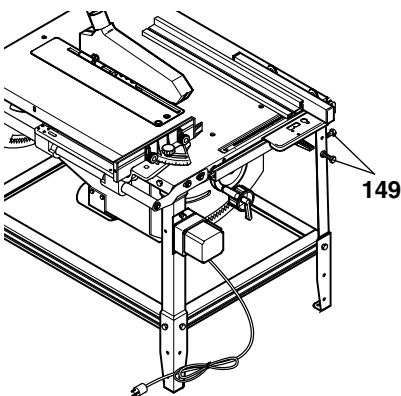
When the mitre fence is not required swing it down, out of the way.

Accessory holder installation

Item	Description	Qty.
149	Hexagon head screw M6 x 50	2
–	Flange nut M6	4

In a final assembly step, two hexagon head screws are fitted as holders for the push stick, push block handle and assembly wrench to the right front leg:

1. Turn one each flange nut approx. 10 mm on the two hexagon head screws (149).
2. Fit one hexagon head screw in the hole at the front of the leg and secure it with another flange nut.
3. Attach the other hexagon head screw likewise on the right-hand side of the leg.



Tightening the screwed connections

- Check the saw's screwed connections. Tighten the screwed connections well hand-tight.

7.1 Mains connection

Danger! Electrical hazard. Operate saw in dry environment only.

Operate saw only on a power source matching the following requirements (see also "Technical specifications"):

- Outlets properly installed, earthed and tested.
- Three-phase outlets with neutral wire.
- Mains voltage and system frequency conform to the voltage and frequency shown on the machine's rating label.
- Protection against electric shock by a residual current device (RCD) of 30 mA sensitivity.
- Fuse protection of 16 A maximum against short circuits.
- System impedance Z_{max} at the interconnection point (house service connection) 0.35 Ohm maximum.

Note:

Check with your local Electricity Board or electrician if in doubt whether your house service connection meets these requirements.

Position power supply cable so it does not interfere with the work and is not damaged.

Protect power supply cable from heat, aggressive liquids and sharp edges.

Use only rubber-jacketed extension cables with sufficient lead cross-section (see "Technical specifications").

Do not pull on power supply cable to unplug.



Changing the direction of rotation! (three-phase motors only)

Depending on the phase sequence, it is possible the saw blade will turn in the wrong direction. This can lead to the workpiece being hurled away when attempting to make a cut. The direction of rotation must therefore be checked every time the saw is connected to a different outlet. In case of an incorrect direction of rotation, the wiring of the outlet must be changed by a qualified electrician:

1. After the saw and all of its safety devices have been assembled, connect it to the mains supply.
2. Raise saw blade fully.
3. Start saw and switch OFF immediately.
4. Check the saw blade's direction of rotation from the left-hand side of the saw. The saw blade must rotate clockwise.
5. If the saw blade rotates counter-clockwise, unplug the power cable at the saw.
6. Have the electric supply changed by a qualified electrician!

7.2 Installation

- Place the machine on a firm, level floor.
- Ensure there is sufficient space to handle larger workpieces.

For maximum upright stability the saw can be bolted to the floor:

1. Place the fully assembled saw at a suitable site and mark the bore holes on the floor.
2. Move saw aside and drill the holes.
3. Align saw with the holes and bolt to the floor.

8. Operation



Risk of injury!

This saw may only be operated by one person at a time. Other persons shall stay only at a distance to the saw for the purpose of feeding or removing stock.

Before starting any work, check to see that the following are in proper working order:

- power cable and plug;
- ON/OFF switch
- riving knife
- blade guard
- feeding aids (push stick, push block and handle).

Use personal protection gear:

- dust respirator;
- hearing protection;
- safety goggles.

Assume proper operating position:

- at the front of the saw;
- in front of the saw;
- to the left of the line of cut;
- when working with two persons, the other person must remain at an adequate distance to the saw.

If the type of work requires, use the following:

- table extension, if otherwise the workpiece would fall off the table after cutting;
- sliding carriage;
- dust collector.

Avoid typical operator mistakes:

- Do not attempt to stop the saw blade by pushing the workpiece against its side. Risk of kickback.
- Always hold the workpiece down on the table and do not jam it. Risk of kickback.
- Never cut several workpieces at the same time – and also no bundles containing several individual pieces. Risk of personal injury if individual pieces are caught by the saw blade uncontrolled.



Drawing-in/trapping hazard!

Never cut stock to which ropes, cords, strings, cables or wires are attached or which contain such materials.

8.1 Dust collector



Danger!

Dust of certain timber species (e.g. beech, oak, ash) can cause cancer when inhaled. Use a suitable dust collector when working in enclosed spaces. The dust collector must meet the following requirements:

- hoses must fit the outer diameter of the dust extraction ports (blade guard 36 mm; chipcase 100 mm);
- air flow volume $\geq 460 \text{ m}^3/\text{h}$;
- vacuum at dust extraction port of saw $\geq 530 \text{ Pa}$;
- air speed at dust extraction port of saw $\geq 20 \text{ m/s}$.

The dust extraction ports are located at the chipcase assembly and at the saw blade guard.

Observe the dust collector's operating instructions as well!

Operation without a dust collector is only possible:

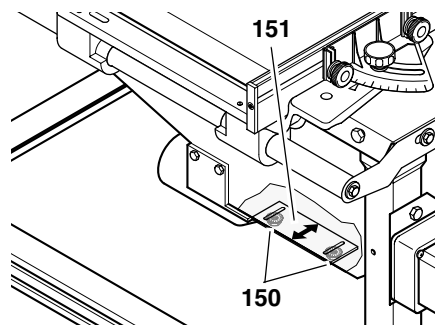
- outdoors;
- for short-term operation (up to a maximum of 30 minutes);
- with dust respirator.

⚠ Caution!

If no dust collector is hooked up the sliding plate on the chipcase must be opened, otherwise chips and saw dust will build up inside the chipcase.

To open the sliding plate:

1. Loosen both nuts (150) on the underside of the chipcase slightly.



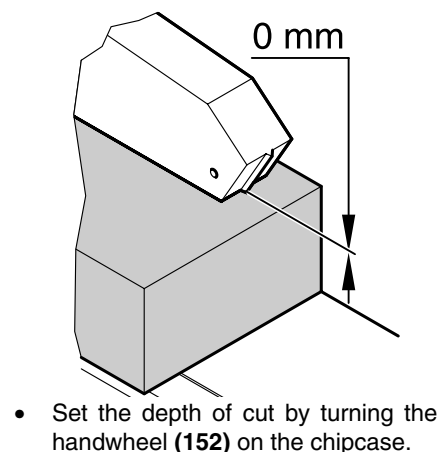
2. Slide sliding plate (151) to the side.
3. Tighten nuts (150).

8.2 Setting the depth of cut

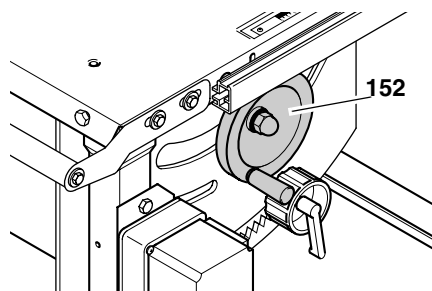


Danger! Parts of the body or objects in the setting range can be caught by the running saw blade! Set the depth of cut only with the saw blade at standstill!

The saw blade's cutting height needs to be adapted to the height of the workpiece: the blade guard shall rest with its front edge on the workpiece.



- Set the depth of cut by turning the handwheel (152) on the chipcase.



Note: To compensate for possible play in the blade height setting mechanism, always raise the blade to the desired position.

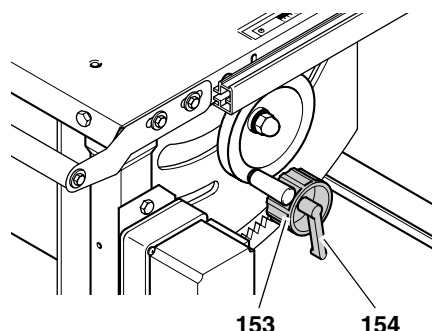
8.3 Setting the saw blade tilt



Danger! Parts of the body or objects in the setting range can be caught by the running saw blade! Set the depth of cut only with the saw blade at standstill!!

The saw blade tilt is steplessly adjustable between 0° and 45° .

1. Loosen the lock lever (154).



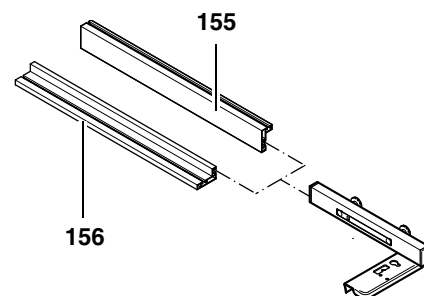
2. Using the handwheel (153), set the desired blade tilt.
3. Tighten the lock lever to secure the saw blade in the set position.

8.4 Sawing with the rip fence



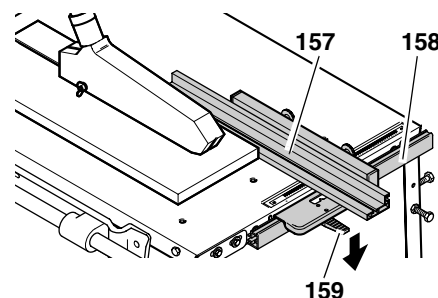
Note: When sawing with the rip fence the long fence extrusion must be used.

1. Adopting the fence extrusion to the workpiece height:

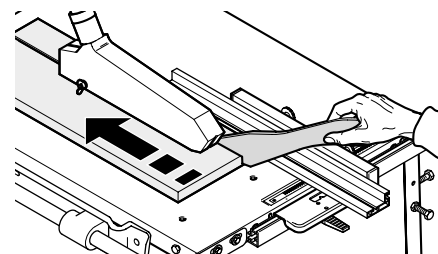


- Wide edge (155) = for cutting thick stock
- Small edge (156) = for cutting thin stock

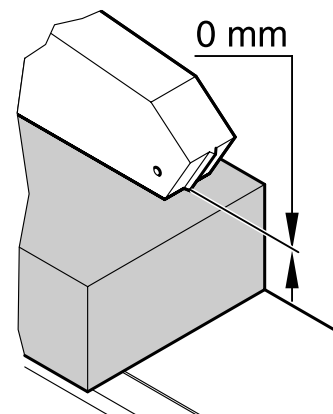
2. The rip fence (157) is placed from top onto the guide extrusion (158) at the front of the saw and locked with the lock lever (159).



Danger! Always use the push stick if the distance between saw blade and rip fence is less than 120 mm.



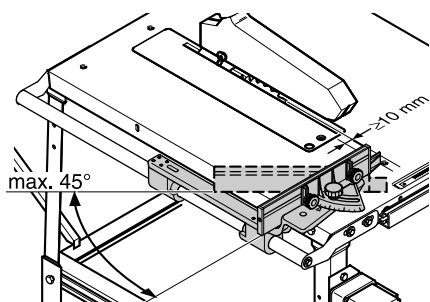
3. Set the cutting height of the saw blade. The blade guard must rest with its front edge on the workpiece.



4. Set saw blade tilt and lock.
5. Start motor.
6. Cut workpiece in a single pass.
7. Switch machine off if no further cutting is to be done immediately afterwards.

8.5 Sawing with the mitre fence

1. Swing mitre fence on the table top.
2. Set to desired mitre angle and lock in that position. For mitre cuts, the fence extrusion is adjustable to 45° maximum.



Caution!
The plastic nose must have at least 10 mm distance to the line of cut.

3. Set the cutting height of the saw blade.
4. Set saw blade tilt and lock.
5. Start motor.
6. Cut workpiece in a single pass.
7. Switch machine off if no further cutting is to be done immediately afterwards.

9. Tips and tricks

- Before cutting a workpiece to size make trial cuts on pieces of scrap.
- Always place a workpiece on the saw table in such way that it can not tilt or rock (e.g. always place a curved board on the table with the convex side up).
- When working long stock use suitable supports, such as table rear or side extensions (optional accessories).
- Keep surfaces of the table top clean – in particular, remove resin residue with a suitable cleaning and maintenance spray (optional accessory).

10. Care and maintenance



Danger!

Prior to all servicing:

- switch machine OFF;
- unplug power cable;
- wait for saw blade to stop.
- Check that all safety devices are operational again after each service.
- Repair and maintenance work other than described in this section should only be carried out by qualified specialists.

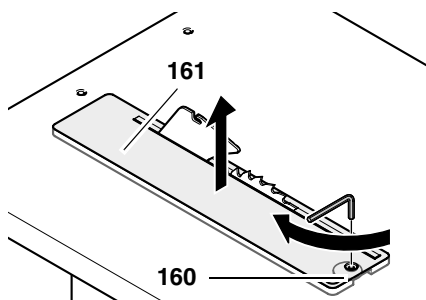
10.1 Saw blade change



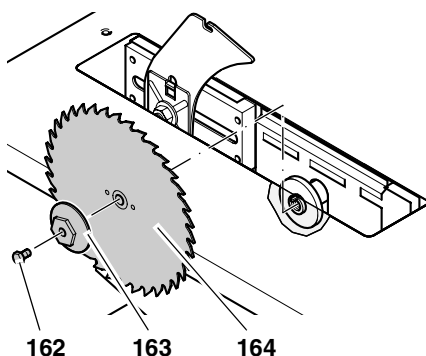
Danger!

Directly after cutting the saw blade can be very hot – burning hazard! Let a hot saw blade cool down. Do not clean the saw blade with combustible liquids. Risk of injury, even with the blade at standstill. Wear gloves when changing blades. When fitting a saw blade, observe the direction of rotation!

1. Raise saw blade fully.
2. Remove blade guard.
3. Turn the flat head screw (160) of the table insert extrusion (161) clockwise by 1/4 turn and remove the table insert.



4. Loosen arbor bolt (162) with spanner (L.H. thread!). Hold outer blade collar (163) with ring spanner to counter.



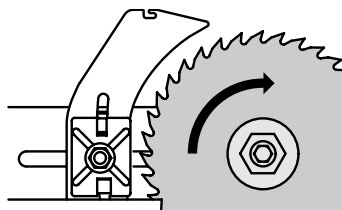
5. Remove outer blade collar (163) and saw blade (164) from the saw spindle.
6. Clean clamping surfaces of saw spindle and saw blade.



Danger!

Do not use cleaning agents (e.g. to remove resin residue) that could corrode the light metal components of the saw; the stability of the saw would be adversely affected.

7. Put on a fresh saw blade (observe direction of rotation!).



Danger!

Use only suitable saw blades (see "Available accessories") – when using unsuitable or damaged blades parts could be explosive-like hurled from it by centrifugal force.

Do not use:

- saw blades made of high speed steel (HSS or HS);
- saw blades with visible damage;
- cut-off wheel blades.



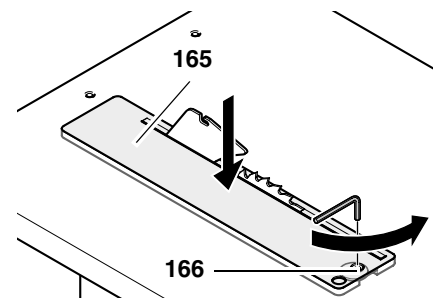
Danger!

- Mount saw blade only using genuine parts.
 - Do not use loose-fitting reducing rings; the saw blade could work loose.
 - Saw blades have to be mounted in such way that they do not wobble or run out of balance and can not work loose during operation.
8. Put on outer blade collar (163) (the inner blade collar's lug must engage in the groove of the outer blade collar).
 9. Screw arbor bolt (162) back in the saw spindle (L.H. thread!) and tighten it. Hold outer blade collar (163) with ring spanner to counter.



Danger!

- Do not extend arbor bolt tightening wrench.
 - Do not tighten arbor bolt by hitting the wrench.
 - After the arbor bolt has been tightened, remove all tools used during saw blade installation!
10. Fit table insert extrusion (165) flush into the saw table.



11. Turn the countersunk screw (166) counter-clockwise against the stop.

10.2 Cleaning the saw blade's height adjustment mechanism

1. Raise saw blade fully and dismount it (see "Saw blade change"). Now the spindle of the height adjustment is accessible from the top.
2. Clean spindle with brush, vacuum, or compressed air.

3. Apply a light coat of Care and Maintenance Spray.
4. Install saw blade and tighten arbor bolt.
5. Install the table insert.

10.3 Saw storage



Danger!

Store saw so that

- it can not be started by unauthorized persons, and
- nobody can get injured.



Caution!

Do not store saw unprotected outdoors or in damp environment.

10.4 Maintenance

Before switching ON

Visual check if distance saw blade – riving knife is 3...8 mm.

Visual check of power cable and power cable plug for damage; if necessary have damaged parts replaced by a qualified electrician.

After switching OFF

Check to see if the saw blade post-runs for more than 10 seconds; if so, have the electronic motorbrake replaced by a qualified electrician.

Monthly (if used daily)

Remove saw dust and chips with vacuum or brush; apply light coat of oil to guide elements:

- threaded rod and guide rods of blade rise and fall mechanism:
- swivel segments.

Every 300 hours of operation

Check all screwed joints, retighten if necessary.

11. Repairs



Danger!

Repairs to electric tools must be carried out by qualified electricians only!

Electric tools in need of repair can be sent to the service centre of your country. Refer to the spare parts list for the address.

Please attach a description of the fault to the electric tool.

12. Transportation

- Lower saw blade fully.
- Dismount add-on parts (fence, sliding carriage).
- If possible use original carton for shipping.

13. Available accessories

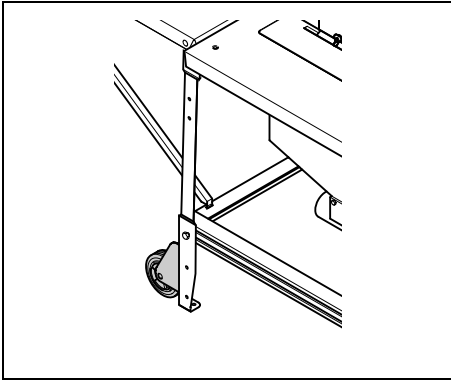
For special tasks the following accessories are available at your specialist dealer – see back cover for illustrations:

- A** Universal Wheel Set
For easy moving.
- B** Sliding Carriage
For convenient guiding of long stock.
- C** Table Side Extension, right
Table size 1000 mm x 600 mm; with foldable supports.
- D** Suction Adapter
To connect a shop vacuum to the dust collection attachment.
- E** Care and Maintenance Spray
To remove resin residue and preserve metal surfaces.
- F** Saw blade CV 315 x 1.8 x 30
56 multiple combination teeth for solid wood and particle board.
- G** Saw blade CV 315 x 1.8 x 30
80 neutral multiple teeth for especially smooth cuts in solid wood and particle board.
- H** Saw blade TCT 315 x 2.8 x 30
48 universal alternate bevel teeth for all woods and wood-derived materials.
- I** Roller Stand RS 420
- J** Roller Stand RS 420 W
- K** Roller Stand RS 420 G

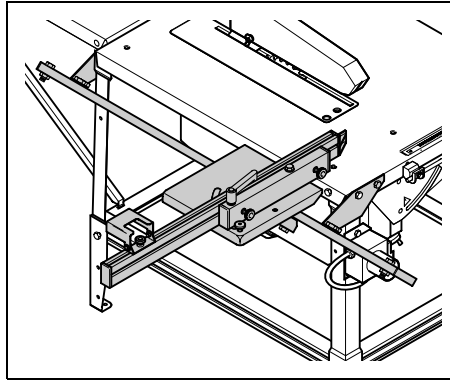
14. Technical specifications

		TKHS 315 2.2 W
Voltage		230 V / 1~50 Hz
Nominal current	A	10.6
Fuse protection min.	A	1 - 16 (time-lag)
Degree of protection		IP 54
Motor speed	min ⁻¹	2800
Motor capacity input capacity P ₁ power output P ₂	kW kW	2.2 kW S6 40% 1.5 kW S1 100%
Saw blade cutting speed	m/s	47
Saw blade diameter (outer)	mm	315
Arbor bore	mm	30
Depth of cut with saw blade vertical at 45° saw blade tilt	mm mm	0 ... 85 0 ... 53
Dimensions length saw table width saw table height saw table height (over all)	mm mm mm mm	800 600 850 1150
Weight complete approx.	kg	58.2
Sound power level according to DIN 23746* no-load when sawing	dB (A) dB (A)	84.0 99.3
Sound pressure level according to DIN 31202* no-load when sawing	dB (A) dB (A)	74.8 85.0
Ambient temperature range	°C	-10 ... +40
Extension cable – min. lead cross section Length of cable 10 m Length of cable 25 m	mm ² mm ²	3 x 1.5 3 x 2.5

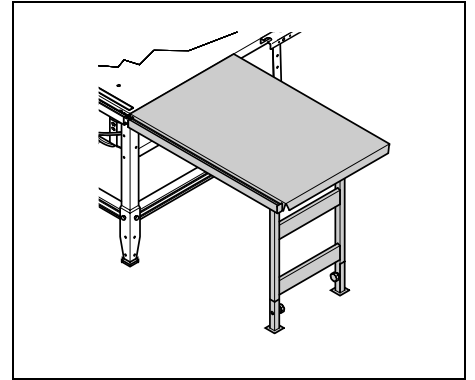
* The values stated here only indicate the loudness emitted by this machine. Whether the operator is required to wear hearing protection can not be determined here. This depends on how much noise reaches the ear of the operator. And this, among other things, depends on the existing ambient conditions (such as other sources of noise near by). Even though it may not be explicitly required, it is in your own interest to always wear hearing protection when operating this machine.



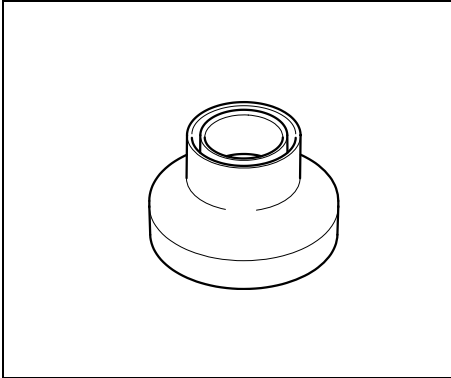
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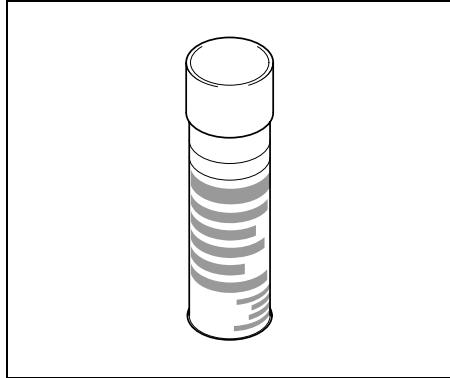
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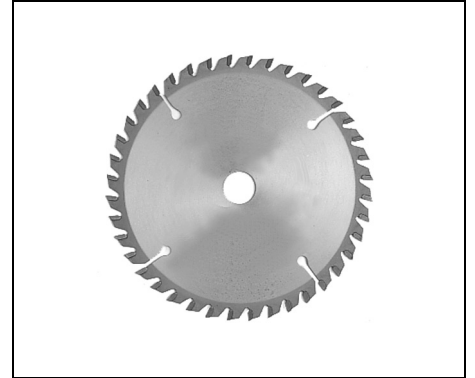
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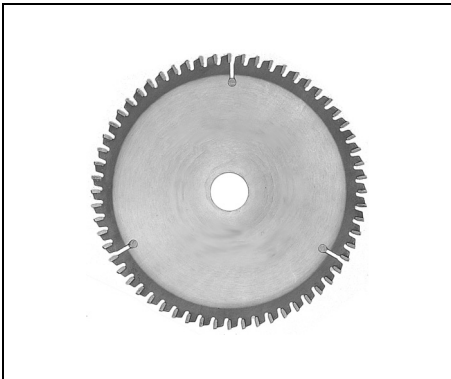
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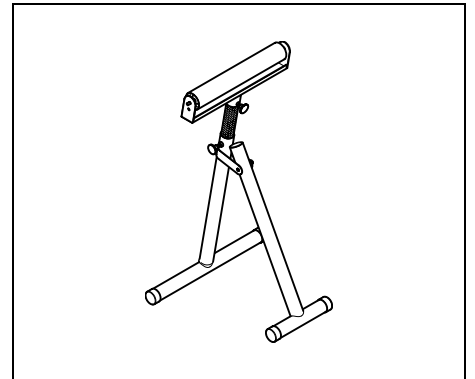
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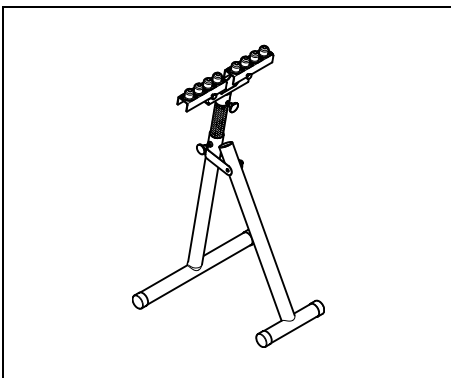
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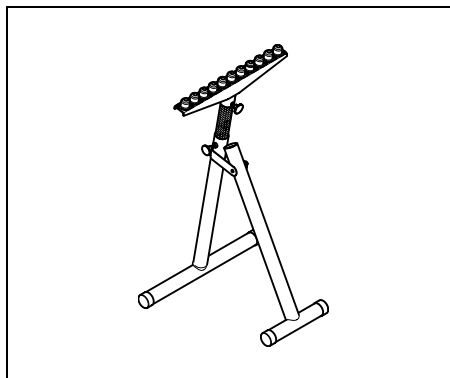
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I 091 005 3353



J 091 005 3361



K 091 005 3345

